

PATENT
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Conrardus H. J. Theeuwen, et al.

Serial No.: 10/537,199

Filing Date: June 2, 2005

For: USE OF CARBOXYMETHYL CELLULOSE
(CMC) IN FRUIT-BASED PRODUCTS

Docket: ACM 2975 P1US

Group Art Unit: 1794

Examiner: Carolyn A. Paden

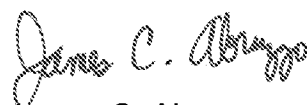
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REPLY BRIEF ON APPEAL

Appellant hereby submits this Reply Brief in accordance with 37 C.F.R. § 41.41(a)(1), in response to the Examiner's Answer mailed April 27, 2009. The honorable Board is respectfully requested to reverse the rejections for the reasons set forth herein.

Respectfully submitted,



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I. STATUS OF THE CLAIMS

Claims 1-9 are currently pending. All pending claims, namely claims 1-9, stand finally rejected and are appealed.

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on Appeal are summarized as follows:

Whether claims 1-9 are unpatentable under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,593,468 ("Lange") in view of U.S. Patent No. 3,418,133 ("Nijhoff") and U.S. Patent No. 3,928,252 ("Rigler").

III. ARGUMENTS

As set forth in the final Official Action dated May 16, 2008, the Office rejects claims 1-9 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,593,468 ("Lange") in view of U.S. Patent No. 3,418,133 ("Nijhoff") and U.S. Patent No. 3,928,252 ("Rigler"), as summarized below.

In response to the Examiner's Answer mailed April 27, 2009, Appellants provide the following additional distinguishing commentary, which is believed to address the Office's comments and place the present case in condition for allowance. Reversal and withdrawal of the final rejection of all of the pending claims is respectfully requested.

Comments on Grounds of Rejection

In comparing the claimed invention to the cited art, Appellants submit, as acknowledged by the Office, that Lange does not disclose or suggest the use of gel-forming CMCs in fruit-based products. Further, the secondary references, namely Nijhoff and Rigler, disclose state of the art, or conventional, CMCs and their use in fruit-based products. As set forth in Appellants' Appeal Brief filed February 17, 2009, Appellants submit that the conventional CMCs disclosed in Nijhoff and Rigler are different than those recited in Appellants' independent claim 1.

As indicated in the present application at page 2, lines 6-11, use of the state of the art CMCs in fruit has certain disadvantages such as insufficient gelling properties, low solubility, and the requirement that they be used in high amounts. Consequently, in practice, the industry uses pectin instead of CMC in fruit-based products, which is disadvantaged in that there is limited possibility of using other solids in the fruit-based product.

Contrary to conventional CMCs, such as disclosed in Nijhoff and Rigler, the present inventors have found that the use of a CMC in accordance with the present invention in fruit-based products leads to an improvement in gelling properties, flowing properties, consistency, and stability. Additionally, use of these gel forming CMCs effectively prevents fluid loss or syneresis and these CMCs are soluble in both hot and

cold water. This is advantageous over, e.g. pectin, as the CMC is dissolved without requiring additional heating, leading to a significant saving of energy and a reduction of costs related therewith. At high temperatures the gelling properties remain unimpaired, avoiding flotation of fruit particles and resulting in a uniform distribution of fruit. A further advantage is that the use of CMCs according to the invention does not require a minimum level of soluble solids (e.g. sugar) as opposed to, e.g. pectin.

1) In paragraph 9 of the Examiner's Answer, the Office asserts that "Applicant admits at the bottom of page 3 of his specification that the CMC used in his invention is disclosed in WO99/20657, which is the international version of this US Patent to Lange." (Examiner's Answer, page 4). Appellants submit, however, that this is not an accurate characterization. As set forth, the relevant passage states, "[t]he CMC to be used in accordance with the present invention can be obtained by the processes described in D.J. Sikkema and H. Jannsen in *Macromolecules*, 1989, 22, 364-366, or by the process disclosed in WO 99/20657." (Specification, at page 3, lines 29-32). As can be seen, this is not an admission that the CMC of the invention is known, but rather that the CMC of the claimed invention can be obtained by the process disclosed in WO 99/20657. Thus, this passage merely identifies how the CMC of the present invention can be obtained, but it is not necessarily an admission that the claimed CMC is known. Accordingly, the Office's reliance on this disclosure as an admission by Appellants, as the Office repeatedly alleges, is improper.

2). In paragraph 9, the Office apparently accords "limited weight" to the preamble limitation, i.e. "a fruit-based product," because "the balance of the claim is directed to the properties of the CMC." (Examiner's Answer, page 5). However, the Office does acknowledge that the claims differ from Lange "in the recitation of Lange's CMC in a fruit based product." (Examiner's Answer, page 5). Appellants submit that "[a]ny terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation." See M.P.E.P. § 2111.02(I) (citing *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989)). In a case relevant to the situation presented here, in *In re Stencel*, 828 F.2d 751, 4 USPQ2d 1071 (Fed. Cir. 1987):

the claim at issue was directed to a driver for setting a joint of a threaded collar, however, the body of the claim did not directly include the structure of the collar as part of the claimed article. The examiner did not consider the preamble, which did set forth the structure of the collar, as limiting the claim. The court found that the collar structure could not be ignored. While the claim was not directly limited to the collar, the collar structure recited in the preamble did limit the structure of the driver. "[T]he framework - the teachings of the prior art - against which patentability is measured is not all drivers broadly, but drivers suitable for use in combination with this collar, for the claims are so limited." *Id.* at 1073, 828 F.2d at 754. M.P.E.P. § 2111.02(I).

Here, as in *In re Stencel*, the claimed invention is not directed to all products having the specified CMC, but only a fruit-based product comprising the specified CMC, even if the balance of the claim is directed to properties of the CMC. Accordingly, the preamble should be treated as a claim limitation on par with the other features of the product claim, and not of limited weight as the Office apparently has accorded.

3) In paragraph 10, the Office concludes that Appellants' arguments directed to Lange's lack of teaching of its CMC in fruit-based products are not persuasive. The Office asserts that because Lange discloses that its CMC can be used in food, that "[t]he fact that fruit-based spreads were not specifically mentioned as a food is not alone seen to constitute unobviousness." (Examiner's Answer, page 6).

As set forth in *Lange*, however, Lange merely discloses that "[b]ecause toxic substances are used neither in the product itself nor in the process technology employed for the production thereof, it is possible to use these substances harmlessly for food, cosmetics and pharmaceutical applications, in addition to their industrial applications." (*Lange*, at col. 2, lines 59-64). Without any further teaching, disclosure or suggestion in *Lange*, the Office turns to the teachings of *Nijhoff* and *Rigler*, which disclose conventional CMCs and the use of such conventional CMCs in fruit-based products. If not for Appellants' own disclosure, Appellants submit there is no other evidence of record suggesting the substitution of the specific CMC of *Lange* for the conventional CMCs disclosed in *Nijhoff* and *Rigler*. Neither *Nijhoff* nor *Rigler* disclose or suggest the CMC of *Lange* in their fruit-based products, and *Lange* does not disclose or suggest its CMC in any specified types of food products, much less in a fruit-based

product, but only broadly for food applications. As discussed in Appellants' Appeal Brief, one of ordinary skill in the art knowing of the general problems with the use of state of the art CMCs in fruit-based products, such as the CMCs of Nijhoff and/or Rigler, would have had little reason to consult Lange. Lange's mere mention of its CMC in the food sector or in food applications is one of many applications touted by Lange for its CMC, which include cosmetics and pharmaceutical sectors and or industrial applications that include additives for coating materials, for the sealing of underground cables and for use in tunneling and in civil and underground engineering. Fruit-based products are one of many uses for CMCs, however Appellants have found that the CMC recited in claim 1 is unexpectedly advantageous in a fruit-based product, unlike the cited references.

4) In paragraph 10, the Office concludes "[t]he fact that Rigler does not use Lange's CMC is not seen to constitute unobviousness," and "[t]he fact that Nijhoff used a different CMC [than Lange] is not alone seen to constitute unobviousness." Appellants' submit, however, that where Rigler and Nijhoff use conventional CMCs and not the CMC of Lange, it is the Office's burden to establish why one of ordinary skill in the art would have substituted the CMC of Lange for the conventional CMCs of Rigler and Nijhoff. Thus, where neither Rigler nor Nijhoff disclose using Lange's CMCs, such lack of disclosure is evidence in favor of the nonobviousness of Applicants' invention. Consequently, whether such evidence alone may not constitute nonobviousness, it should not be ignored, and should be considered a factor along with the other evidence of nonobviousness.

5) The Office alleges that Nijhoff shows some examples of successful spreads in Examples 5 and 6. Further, the Office asserts that Nijhoff further illustrates that it is known in the art to survey a variety of CMC compositions to achieve optimal results. The Office also asserts that there are advantages of CMC in products requiring superabsorbent material with water retention properties.

While Lange and Nijhoff may have generally espoused these considerations, Lange fails to provide any indication or example for any specified uses of its CMC in

food sectors. Further, where specific examples are described for its CMCs, the products include “powders, e.g. in adhesive plasters, nappies, bandages, denture fixative creams, etc.,” and that “considerably improved water retention is observed in relation to liquids such as blood, wound secretions, urine, etc.” (Lange, at col. 2, lines 55-59). It is significant that none of these examples are related to food applications. Further, if as the Office alleges, Appellants’ CMC is disclosed in Lange, it is also significant that Lange is silent with respect to any specified uses of its CMC in food products, much less fruit-based products. Thus, Appellants submit that Lange thus fails to give anything more than general guidance for its CMC in any food product, without limitation.

Likewise, the secondary references, namely Nijhoff and Rigler, disclose state of the art, or conventional, CMCs and their use in fruit-based products. Appellants submit that without any suggestion in Nijhoff or Rigler to utilize the specific CMCs of Lange in a fruit-based product, the Office’s rejection is predicated on the position that it would have been obvious for one of ordinary skill in the art at the time of the invention to have tried all CMCs to eventually arrive at Appellants’ invention.

Appellants’ submit, however, that by doing so the Office’s position is essentially that it would have been obvious to vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where neither Nijhoff nor Rigler gave any indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful in arriving at Appellants’ invention. Appellants submit that such a basis for the rejection can only be based on an improper obvious to try rationale. Similarly, without anything more than general guidance in Lange, once again, the Office’s rejection is based on an improper obvious to try rationale, without any indication that there would have been a reasonable expectation of success.

6) In paragraph 10, the Office also states that CMC has a well known use in foods, and that one of ordinary skill in the art would be expected to be aware of the various successful and unsuccessful applications of CMC in foods. Based on this

rationale, the Office apparently concludes that it would have been obvious for one of ordinary skill in the art to try any CMC in any food application. As indicated in Appellants' Appeal Brief, the assignee for the present application manufactures many specialty CMC's grades, some are food grade, and some are not. For example, some specialty and/or modified CMC's are used in drilling muds (oilfield applications), as iron ore pelletizing/agglomerating agents and the like. Applicants submit that it cannot be the Office's position that the secondary references make it obvious to use any specialty CMC, including such non-food grade specialized CMC's, in fruit based products, even if one were aware of some successful and unsuccessful CMCs in food products. Without more, Appellants submit that Office has failed to establish a *prima facie* case of obviousness and the rejection should be reversed and withdrawn.

IV. CONCLUSION

For all of the above reasons, as well as all of the reasons submitted in Appellants' Appeal Brief filed February 17, 2009, Appellants submit that the currently pending rejections of claims 1-9 are improper. Accordingly, the rejection of the appealed claims of record should be reversed with instructions to allow these claims over the cited references. Such action is hereby respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James C. Abruzzo". The signature is fluid and cursive, with the first name "James" and last name "Abruzzo" clearly distinguishable.

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